

REMARKS

Favorable reconsideration of the application is respectfully requested in the light of the above amendments, and the following remarks:

Election/Restriction

It is noted that the restriction requirement has been withdrawn, and therefore all claims now in the application are to be considered on their merits.

The Rejections Under 35 USC § 101 and § 112

These rejections, as set forth in Sections 3 – 6 of the Official Action of May 19, 2004, merely repeat word-for-word the identical rejections as set forth in Sections 2 – 5 in the Official Action of May 12, 2003. Applicant's response of March 4, 2004 answered these rejections in considerable detail. The arguments set forth by Applicant in the response of March 4, 2004 to the identical rejections in the Official Action of May 12, 2003, are therefore incorporated herein by reference.

In Section 10 of the Official Action of May 19, 2004, titled "Response to Arguments", the Examiner made certain comments in response to the arguments made by Applicant in the response of March 4, 2004, as follows:

1). First, the Examiner noted that the U.S. Supreme Court Decision of 1966, Brenner v Manson, was cited by the Examiner "to emphasize the utility requirement of 35 USC 101".

2. Secondly, the Examiner considered that Applicant's arguments, that Applicant's method or apparatus "will inhibit or weaken a hurricane to some degree or to some extent or have some effect" --, "further strengthens the Examiners position of maintaining the 35 USC 112, first paragraph rejections"

(failing to meet the enabling requirement and the best mode requirement).

Thus, the Examiner held that “some” refers to “an unspecified or indefinite number or quantity”, and “therefore, one of ordinary skill in the art would not be able to determine what is meant by inhibiting or weakening a hurricane to some extent or to some degree or have some effect to make and/or use the invention”.

With respect to the first comment by the Examiner, Applicant readily agrees that 35 USC 101 requires “utility” for patentability. However, the cited Supreme Court Decision, while emphasizing the requirement for utility, involved a completely different utility situation than the present case. Thus, as brought out in Applicant’s response of March 4, 2004 (Page 2), the cited Supreme Court Decision held that the requirement for utility under 35 USC 101 was not satisfied by a showing that the produced compound belonged to a class of compounds which scientists were then screening for possible use.

This is not the case here. In the present case, Applicant’s invention aims to inhibit, or at least weaken, the formation of hurricanes. For reasons discussed in the previous response, it is hard to conceive of any development that would have more utility than a method and apparatus that would successfully weaken the formation of hurricanes to some extent. The cited Supreme Court Decision thus supports applicant’s argument clearly meets the “utility” requirement of 35USC101.

The second comment by the Examiner appearing in Section 10 of the Official Action of May 19, 2004 (namely that effecting “some” weakening, without specifying a definite number or quantity fails to meet the “enabling” requirement and the best mode requirement of 35 USC 112, first paragraph) is even more baseless when applied to the facts in this case. Thus, the “utility” requirement of 35 USC 101,

is to be distinguished from the “enabling requirement and best mode requirement” of 35 USC 112, first paragraph. The context in which the term “some” appears, as discussed above, refers to the utility requirement of 35 USC 101, and not to the sufficiency of disclosure requirements of 35 USC 112, first paragraph. We submit that whereas the enabling requirement of 35 USC 112 is a quantitative requirement, the “utility” requirement of 35 USC 101 is a qualitative requirement. That is, while the utility requirement of 35 USC 101 requires a showing of “some utility”, we submit it does not require that the amount or degree of utility be specified or otherwise quantified in the description of the specification. In applicant’s opinion, a showing of “some” utility would be sufficient to meet the utility requirement of 35 USC 101, without showing any particular quantity or degree of utility.

As to the operability of the proposed method and apparatus to effect at least some weakening of hurricanes, Applicant would like to particularly emphasize, as noted in the response of March 4, 2004, that what Applicant proposes is not a “brute force” approach, but rather an elegant “spoiler” approach. Such a “spoiler” approach would thus be analogous to the ice-nuclei seeding technique referred to in the quotation from the Encyclopedia Britannica, whereby a small input of energy upsets or spoils a natural instability and leads to large results.

It is believed that the arguments and materials presented in the response of March 4, 2004 clearly support an expectation that the proposed method and apparatus could at least weaken a hurricane to some extent, and therefore meet the “utility” requirement of 35 USC 101. Further supporting such an expectation is the newly-cited reference, Girden U.S. Patent No. 3,683,627, relied upon in the rejection of the claims under 35 USC 103, as discussed more fully below.

The Rejections Under 35 USC § 103

In Sections 7 and 8 of the Official Action of May 19, 2004, the Examiner rejected Claims 1 – 3 and 10 under 35 USC 103 (a) as being unpatentable over newly-cited Girden U.S. Patent 3,683,627. This patent discloses a method of inhibiting or weakening a hurricane by pumping cooler subsurface water to the surface (column 1, lines 43-62).

Claim 1 has been amended in order to more sharply distinguish over this reference, by reciting, not only that the method involves the step of detecting the onset of a hurricane in a region of open water, but also the step of “immediately moving to said region a sea vehicle having a capability of cooling water on a large scale;”, and further, the step of “immediately utilizing said vehicle for cooling the surface water in the open water region”.

Girden does not involve detecting the onset of a hurricane in a region of open water, or immediately moving to such region a sea vehicle having a capability of cooling water on a large scale. Rather, the technique described in that patent involves the deployment along or beyond the shoreline compressors (16) for delivering air via tubes (18) to dissolving apparatus (11) on the ocean floor (13). By thus bubbling air through the cold water at the depths of the ocean, the surface of the water body may thus be cooled, for a number of purposes, one of which is to “prevent development of the hurricane” (column 1, line 57).

The system described in Girden is thus a static or relatively fixed installation along the shoreline which, presumably, would be continuously operated. Such a system is thus to be sharply distinguished from Applicant’s method and apparatus, which is a quick-acting mobile system and method involving first detecting the onset of a hurricane in a region of open water, and then immediately moving to the region a

sea vehicle having a capability of cooling water on a large scale. It is submitted, therefore, that Girden's static system does not disclose or render obvious the quickly-mobile system and method of the present application, either under 35 USC 102 or under 35 USC 103.

If anything, Girdon merely reinforces Applicant's arguments, as presented in detail in the last response, that the method and apparatus proposed by Applicant does not violate any recognized physical principle, or is otherwise incapable, in the present state of science and technology, of achieving the objects of the invention, to inhibit or at least to weaken hurricane formation to some extent.

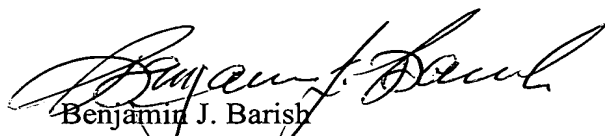
In Section 9 of the Official Action of May 19, 2004, the Examiner also rejected Claims 1 – 3 and 10 under 35 USC 103a as being unpatentable over Bronicki et al in view of Girden. Bronicki et al was relied upon as a primary reference for a disclosure of pumping cooler deeper water to the surface of warm water in order to cool the surface and modify the weather; and Girden was relied upon for disclosing the possibility of using this technique for inhibiting or weakening a hurricane formation.

For reasons discussed in the last response, Bronicki et al does not disclose or suggest the invention of the present application, particularly as defined in amended Claim 1. The discussion above with respect to Girden shows that this reference also does not disclose or suggest the invention as defined in amended Claim 1. It is therefore not seen how the combination of these two references could be relied upon as rendering the invention obvious from these references, i.e., in the absence of Applicant's disclosure.

For the foregoing reasons, it is submitted that Claims 1 – 3 and 10 are allowable over these references under 35 USC 103. It is to be noted that the remaining claims, namely Claims 4 – 9 and 11 – 16, were not rejected under 35 USC 103, and are therefore believed to be allowable with Claims 1 – 3 and 10.

In view of the foregoing, it is submitted that the present application is now in condition for allowance, and an early Notice of Allowance is respectfully requested.

Respectfully submitted,


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